limited to the variety. Throughout our specimens of P. psoralioides the same trait is repeatedly found.

A slender habit, similar to that of var. gracilis, is found among some of the highland plants which have the larger calyx, absence of glands, small bracts, etc. of var. eglandulosa. This depauperate type so imperceptibly merges into the slender-leaved, more robust variety that I have made no attempt to separate it as an entity,

RADCLIFFE COLLEGE

SOME NOTEWORTHY PLANTS OF TENNESSEE

E. B. HARGER

In the fall of 1933 and again in May, 1934 I had opportunity to collect in Tennessee, and although only a few days were available for collecting, the results summarized below seem of sufficient interest to warrant publication.

Much of the time was spent near Pikeville, where the Sequatchie Valley, an eroded anticline, cuts through the Cumberland Plateau and offers the chance to collect both on the mountain sides and on the Plateau proper. Other collecting was near Erin, about 75 miles northwest from Nashville, with side trips to the banks of the Tennessee River at Camden and Pine Bluff.

In most of this region the valleys are calcareous, while the uplands show a flora indicative of more acid soils.

The only comprehensive work on the flora of this region is Gattinger's Flora of Tennessee, which was published in 1901, and, as is natural after the lapse of so much time, is incomplete in the light of later collections. This is cited below as *Gattinger*. Reference has also been made as far as possible to later reports in various publications and to specimens in the Gray Herbarium.

Specimens of all species mentioned in this paper have been deposited in the Gray Herbarium and compared there with specimens in that collection.

Panicum Laxiflorum Lam., var. strictirameum (Hitchc. & Chase) Fern. Dry pasture, Clarksville, Montgomery Co., May 19, 1934. No. 7859.

Not reported from Tennessee and no specimens seen from north of Auburn, Alabama and Jackson, Mississippi.

Sphenopholis filiformis (Chapm.) Scribn. Dry, open woods on the Cumberland Plateau at about 2,000 ft. elevation, Van Buren Co., May 13, 1934. No. 7762.

Reported from Chester Co., Gattinger, but no specimens from Tennessee seen. All other specimens examined are from the Coastal Plain and those from the southeast have somewhat larger spikelets than those in this collection. Those from farther west match it closely and were given an unpublished varietal name by Vasey. Further study may show this to be a definite geographic trend.

Carex Leavenworthii Dewey. Along streams, head of Sequatchie Valley, Cumberland Co., May 18, 1934, no. 7823, and Erin, Houston Co., May 19, 1934, no. 7834.

"E. Tenn." Gattinger, and collected by H. K. Svenson in Cheatham Co.

Carex virescens Muhl. Limestone ledges near Wells Creek, Erin, Houston Co., May 22, 1934. No. 7906.

Not previously reported from Tennessee. C. virescens of Gattinger is probably C. Swanii.

Carex abscondita Mackenzie (C. ptychocarpa Steud.). Rich woods at base of mountain northwest of Pikeville, Bledsoe Co., May 16, 1934. No. 7827.

Not previously reported from Tennessee.

CAREX PLANTAGINEA Lam. Steep moist hillside woods at Falls Creek Falls, Van Buren Co., May 13, 1934. No. 7749.

Reported only from the extreme eastern part of the state.

Trillium recurvatum Beck. Rich limestone woods at head of Sequatchie Valley, Cumberland Co., May 16, 1934. No. 7818.

Reported from Clarksville and Jackson and from Tipton Co. Anderson, Rhodora 36: 126.

Urtica Chamaedryoides Pursh. Rich woods on limestone at Yellow Creek, Montgomery Co., May 20, 1934. No. 7879.

All descriptions of this species call it annual, but the plants of this collection seem to be plainly from a perennial root, as in other specimens examined.

ASARUM RUTHII Ashe. Dry woods at base of Walden Ridge near Pikeville, Bledsoe Co., May 14, 1934. No. 7782.

Hiawassee Valley, Gattinger; specimen in the Gray Herbarium from Knoxville.

ASARUM MEMMINGERI Ashe. Dry woods near Caney Creek Falls, Van Buren Co., at about 2,000 ft. elevation, May 13, 1934. No. 7741.

Not reported from Tennessee, but some material from the state in the Gray Herbarium appears to be of this species.

Delphinium virescens Nutt. Thin dry soil on limestone by roadside at Lebanon, Wilson Co., May 23, 1934. No. 7905.

What was undoubtedly this species was also seen in a similar situation near McMinnville. Probably the same as D. carolinianum of Gattinger.

Sanguinaria canadensis L., var. rotundifolia (Greene) Fedde. Limestone ledges, Erin, Houston Co., May 18, 1934, no. 7835, and May 22, 1934, no. 7903.

Collected in Carroll Co., by H. K. Svenson. Perhaps the common form in the region.

Philadelphus inodorus L., var. grandiflorus (Willd.) A. Gray. Woods on the bank of the Tennessee River at Rockport, Benton Co., May 21, 1934. No. 7892.

From the specimens seen this would seem to intergrade with the species. Knox Co., Gattinger.

Philadelphus Latifolius Schrad. Limestone bluff of Harpeth River west of Nashville, Davidson Co., May 13, 1934. No. 7808.

Philadelphus Hirsutus Nutt. Side of gorge at Caney Creek Falls, Van Buren Co., May 13, 1934. No. 7743.

Cocke Co., Gattinger.

ROBINIA Elliottii (Chapm.) Ashe. Top of precipice of Sewanee conglomerate northwest of Pikeville, Bledsoe Co., about 1,800 ft. elevation, May 13, 1934. No. 7758.

ROBINIA BOYNTONII Ashe. Woods by Caney Creek Falls, Van

Buren Co., about 2,000 ft. elevation, May 13, 1934. No. 7761.

Baptisia leucantha Torr. & Gray. Roadside near stream about 8 miles south of Camden, Benton Co., May 21, 1934. No. 7891.

Not previously reported from Tennessee.

Thermopsis mollis M. A. Curtis. Dry woods on Cumberland Plateau west of Whitwell, Marion Co., at about 1,800 ft. elevation, May 14, 1934. No. 7788.

No published report from Tennessee seen. Of two collections in the Gray Herbarium from Lookout Mountain, one is definitely stated to have been in the state.

Euphorbia Mercurialina Michx. Along roadside in dry woods, Walden Ridge near Pikeville, Bledsoe Co., at about 1,500 ft. elevation, May 14, 1934. No. 7769.

ACER PENNSYLVANICUM L. Gorge of Falls Creek at the falls, Van Buren Co., May 13, 1934. No. 7750.

Reported only from the Great Smoky Mountains, Gattinger. Growing at the same station with Carex plantaginea and Viola blanda in the central part of the Cumberland Plateau.

Styrax grandifolia Ait. Roadside in woods south of Dover, Stewart Co., May 20, 1934. No. 7782.

Not before reported from Tennessee, but growing here only 15 miles south of the Kentucky line.

Hydrophyllum Macrophyllum Nutt. Rich limestone woods, Montgomery Co., May 19, 1934, No. 7876.

Sumner Co., Gattinger.

Phacelia Bicknellii Small. Limestone bluff at Erin, Houston Co., May 18, 1934. No. 7844.

Collected in Davidson Co. near Nashville by E. J. Palmer.

Hереома нізріда Pursh. Dry pasture, Clarksville, Montgomery Co., May 19, 1934. No. 7856.

Not reported from Tennessee nor included in Small's Flora. Collected in Mississippi by C. A. Weatherby. Apparently spreading as a weed.

Scutellaria ovata Hill. Limestone talus, bank of the Tennessee River at Pine Bluff, Stewart Co., May 20, 1934. No. 7883.

Scutellaria nervosa Pursh. Damp woods at Rockport, Benton Co., near the Tennessee River, May 21, 1934. No. 7893.

Sumner Co., Gattinger. Collected at Clarksville by E. J. Palmer.

Penstemon calycosus Small. Limestone ledge by roadside, Clarksville, Montgomery Co., May 19, 1934. No. 7864.

Apparently frequent in central Tennessee. A good garden perennial, producing its large, red-purple flowers in ample panicles.

Penstemon Brevisepalus Pennell. Erin, Houston Co., May 18, 1934, no. 7806, and May 22, 1934, no. 7868.

An extension of range northwestward from the stations cited by Pennell.

Coreopsis lanceolata L. Dry woods near the Tennessee River, Humphreys Co., May 21, 1934. No. 7887.

Not before reported from Tennessee.

Coreopsis crassifolia Ait. Dry woods near the Tennessee River, Humphreys Co., May 21, 1934. No. 7886.

Nashville, Gattinger. Growing with the preceding species and appearing like a form of it.

Coreopsis auriculata L. Rather dry cherty bank by roadside at

base of Walden Ridge near Pikeville, Bledsoe Co., May 18, 1934. No. 7777.

Greenbrier, Robertson Co., Gattinger.

Serinia oppositifolia (Raf.) Kuntze. Field by Wells Creek, Erin, Houston Co., May 18, 1934. No. 7833.

No published report seen. Collected in Hardin Co. by C. A. Weatherby and on Lookout Mountain by J. R. Churchill.

OXFORD, CONNECTICUT

NAJAS GRACILLIMA IN INDIANA AND MICHIGAN—In discussing the distribution of Najas gracillima in a recent paper, I stated that search for the species should now be made "in the area between Tioga Co., N. Y. and Wisconsin." At the time of that writing, no specimens. had been seen from this central region, but recently Mr. C. C. Deam has called to my attention the collection of this Najas by R. M. Kriebel in Lawrence Co., Indiana. Mr. Kriebel has kindly contributed specimens for my study. This material is unquestionable N. gracillima with the very narrow leaves, scarious spiny-toothed auricled leaf-bases and typical slender seeds. I may cite two collections: R. M. Kriebel, no. 3477, in association with Elodea canadensis, Bacopa rotundifolia and Rotala ramosior, in a sinkhole pond 7 miles south of Bedford, Lawrence Co., Ind. and R. M. Kriebel, no. 1922, with Potamogeton diversifolius in a pond 5 miles southeast of Bedford. Part of no. 1922 was sent to the Gray Herbarium. These collections seem particularly significant, since Lawrence Co. is south of the center of Indiana and hence represents the southernmost station known for this species in the country west of Maryland.

I now can also report the definite occurrence of N. gracillima in Michigan. Mr. F. J. Hermann collected the species in shallow water in Third Sister Lake, three miles west of Ann Arbor, Washtenaw County, on August 19, 1936. The sheet (Hermann, no. 8374), which is to be deposited in the Gray Herbarium, was kindly loaned to me for study. The material is typical in all respects.

It is expected that careful search will reveal N. gracillima at other places between New York and Wisconsin.—Robert T. Clausen, Bailey Hortorium, New York State College of Agriculture, Ithaca, N. Y.

¹ Clausen, R. T. Studies in the genus Najas in the northern United States. Rнорова 38: 333-345. pl. 437 and 438. 1936.